Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Bismarck, N. Dak.	22	56	nw.	Miles City, Mont.	30	52	e.
Cape Henry, Va.	30	50	nw.	Mount Tamalpais, Cal.	21	61	n.
Cleveland, Ohio	7	50	nw.	New York, N. Y.	27	50	nw.
Helena, Mont.	21	55	sw.	Pocatello, Idaho	22	52	sw.
Knoxville, Tenn.	16	60	w.	Do.	29	53	sw.
Lander, Wyo	22	52	w.	Sandusky, Ohio	7	56	nw.
Miles City, Mont.	21	62	n.				

LOCAL STORMS AND TORNADOES.

There were not so many thunderstorms during the current month as in the corresponding month of last year. There were no violent tornadoes. Three fully developed tornadoes were observed—one in Brown County, Nebr.; one in Montgomery County, Ky.; and one in Hillsboro County, N. H. A diminutive tornado was observed about twenty-five miles east of Cheyenne, Wyo., being the first known instance of the development of a tornado in that region. Tornadoes have been observed in western Kansas and indeed in eastern Colorado, but the funnel cloud and the force of the storm have suggested in each case an overgrown whirlwind rather than a well developed tornado.

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table VII, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

Thunderstorms.—Reports of 5,476 thunderstorms were received during the current month as against 5,713 in 1898 and 5,253 during the preceding month.

The dates on which the number of reports of thunderstorms for the whole country were most numerous were: 16th, 294; 6th, 278; 5th, 272; 8th, 268.

Reports were most numerous from: Colorado, 295; Ohio, 256; New York, 244; Pennsylvania, 221.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz, 18th to 26th.

The greatest number of reports were received for the following dates: 3d, 11; 7th, 5; 10th and 31st, 4.

Reports were most numerous from: Ohio, 8; Massachusetts and South Dakota, 5.

In Canada.—Auroras were reported as follows: Quebec, 10th; Montreal, 7th; Minnedosa, 4th, 7th; Swift Current, 26th; Banff, 16th.

Thunderstorms were reported as follows: St. Johns, 6th, 22d, 29th; Grand Manan, 13th, 21st, 22d; Yarmouth, 8th, 9th, 21st, 22d; Charlottetown, 5th; Father Point, 12th; Quebec, 6th, 10th, 12th, 13th, 15th, 17th, 27th; Montreal, 5th, 17th, 21st, 27th; Toronto, 4th, 28th; White River, 20th, 24th; Ottawa, 5th, 6th, 8th, 12th; Port Stanley, 5th, 8th, 11th, 29th; Saugeen, 10th; Parry Sound, 3d, 7th, 17th, 26th; Port Arthur, 20th, 22d, 24th, 26th, 27th; Winnipeg, 9th, 19th, 21st, 23d, 27th, 31st. Minnedosa, 11th, 14th, 19th, 22d, 23d, 31st; Qu'Appelle, 19th, 21st, 22d; Medicine Hat, 2d, 3d, 4th, 7th, 8th, 9th, 10th, 13th, 14th, 21st, 22d, 23d, 25th; Swift Current, 2d, 4th, 5th, 10th, 14th, 21st, 22d; Calgary, 8th, 16th; Banff, 7th, 19th, 20th, 30th, 31st; Prince Albert, 8th, 11th, 13th, 18th, 19th; Battleford, 3d, 9th, 11th, 19th, 21st, 23d, 24th, 25th, 27th; Esquimalt, 29th; Barkerville, 19th.

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
	%			%	
New England	79	0	Missouri Valley	67	0
Middle Atlantic	75	+ 3	Northern Slope	54	+ 2
South Atlantic	78	— 2	Middle Slope	68	+ 7
Florida Peninsula	80	0	Southern Slope	68	+10
East Gulf	76	— 3	Southern Plateau	41	— 1
West Gulf	75	+ 2	Middle Plateau	30	— 2
Ohio Valley and Tennessee	68	— 1	Northern Plateau	40	— 3
Lower Lake	70	+ 2	North Pacific Coast	72	— 5
Upper Lake	77	+ 6	Middle Pacific Coast	58	— 9
North Dakota	66	0	South Pacific Coast	64	+ 1
Upper Mississippi	68	0			

SUNSHINE AND CLOUDINESS.

The distribution of sunshine is graphically shown on Chart VII, and the numerical values of average daylight cloudiness, both for individual stations and by geographical districts, appear in Table I.

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	5.0	+0.1	Missouri Valley	4.8	+0.4
Middle Atlantic	5.1	+0.3	Northern Slope	4.2	+0.4
South Atlantic	5.5	+0.5	Middle Slope	4.8	+0.8
Florida Peninsula	5.8	+0.8	Southern Slope	4.4	+0.6
East Gulf	4.5	−0.5	Southern Plateau	3.3	0.0
West Gulf	4.4	+0.2	Middle Plateau	3.1	+1.1
Ohio Valley and Tennessee	4.7	+0.1	Northern Plateau	2.7	−0.4
Lower Lake	4.6	+0.1	North Pacific Coast	4.0	−0.4
Upper Lake	5.1	+0.4	Middle Pacific Coast	3.5	+0.6
North Dakota	3.8	−1.0	South Pacific Coast	2.1	−0.6
Upper Mississippi	4.4	+0.1			

NOTES ON THE WEATHER IN THE WEST INDIES.

No general disturbances were observed.

Santo Domingo: A severe local storm visited this place on the 28th. The wind blew steadily from the north and northeast with heavy rain all day, culminating in a severe squall at 7:30 p. m., maximum wind velocity, 40 miles per hour. Three small sailing vessels anchored in the outing were driven on the rocks and totally destroyed.

Basseterre: Severe thunderstorms on the 14th, maximum wind velocity, 30 miles per hour.

Curaçao: Heavy sea swell from 8 to 10 a. m. on the 29th.

Santiago: Lightning struck a cocoanut tree near the wharf and set it on fire on the afternoon of the 20th.

Puerto Principe: A fall of 20° in temperature, from 96° to 76° occurred during a thunderstorm on the 10th. Being in the interior of the island the daily range of temperature is much greater than at coast stations. During July the daily range was never less than 14°, and on two days it was as high as 27°, the average being 20°.

The rainy season had not set in over Cuba at the close of the month; the rainfall throughout the islands was generally light, except at San Juan, Porto Rico.

Chart VIII shows the pressure and temperature distribution, and the prevailing winds in the West India region for the month being a continuation of the series begun in the April 1899 REVIEW.